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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/280,435	03/29/1999	FRANK OCTAAF VAN DER PUTTEN	902-578-2	5737

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EXAMINER	
WILLIAMS, DEMETRIA A	
ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 09/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/280,435

Applicant(s)

VAN DER PUTEN ET AL.

Examiner

Demetria A. Williams

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 39 and 40 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8, 11-13, 16, 17, 21-23, 26-29, 32, 33 and 38 is/are rejected.
- 7) ☒ Claim(s) 5, 9, 10, 14, 15, 18-20, 24, 25, 30, 31 and 34-37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on June 14, 2002 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 5,903,612 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 12, 16, 17, 21, 22, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Maeda et al ("Maeda" hereinafter).

Regarding claim 12, Maeda discloses a method of synchronizing data sent from a transmitter to a receiver comprising generating and sending a trigger signal from the receiver to the transmitter indicating that the receiver is ready to receive data and therefore the transmitter is

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permitted to send data (column 5, lines 4-7) and upon receipt of the trigger signal by the transmitter, sending data to the receiver (column 5, lines 7-10).

Regarding claim 16, Maeda discloses that transmission of the data from the transmitter to the receiver begins immediately upon receipt of the trigger signal (column 5, lines 7-10).

In reference to claim 17, Maeda discloses a receiver for receiving data from a transmitter in synchronism with a signal available in the receiver comprising a trigger generation and sending means for indicating that the receiver is ready to receive data and therefore the transmitter is permitted to send data (column 5, lines 4-7) and a data receiver for receiving the data transmitted by the transmitter (column 5, lines 17-21).

Referring to claim 21, Maeda discloses that upon receipt of the trigger signal, the transmitter immediately begins the process of transferring data to the receiver (column 5, lines 7-10).

Regarding claim 22, Maeda discloses a transmitter (figure 1, reference character 50) for transmitting data to a receiver synchronous with a signal available in the receiver comprising a trigger receiving means for receiving the trigger sent from receiver indicating that the receiver is ready to accept data and a data sender (figure 1, reference character 8a) for sending data to the receiver (column 5, lines 7-10).

In reference to claim 26, Maeda discloses that upon receipt of the trigger signal, the transmitter immediately begins the process of transferring data to the receiver (column 5, lines 7-10).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 2, 4, 6, 11, 27-29, 32, 33, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al in view of applicant's admission in the specification filed on March 29, 1999.

Regarding claim 1, Maeda discloses a method of synchronizing data sent from a transmitter to a receiver with a signal available in the receiver comprising generating a signal available when data fits into an available time frame and generating and sending a trigger signal to the transmitter to indicate that the transmitter is allowed to send data. As embodied in Maeda, the receiver generates and outputs a ready to accept signal at the time moments when it is ready to accept data (column 5, lines 4-7). The method also comprises sending the data from the

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transmitter to the receiver upon receipt of the trigger signal wherein the data is synchronized with the signal available (column 5, lines 7-10, 17-21). While Maeda does not specifically disclose that the signal available is not of a constant frequency, it is well known in the art and admitted by the applicant (page 4, lines 24-26 of the specification) that in many frame formats, such as ADSL, an entire frame need not be filled with data. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the signal available will vary depending upon the amount of data needed.

Regarding claim 4, Maeda discloses a receiver (figure 1, reference character 120) for receiving data from a transmitter comprising trigger generation and sending means for indicating a time moment when the receiver is ready to receive data (column 5, lines 4-7) and a data receiver for receiving the data transmitted by the transmitter (column 5, lines 17-21). As explained above in reference to claim 1, Maeda does not specifically disclose that the signal available is not of a constant frequency. However, it is well known in the art and admitted by the applicant (page 4, lines 24-26 of the specification) that in many frame formats, such as ADSL, an entire frame need not be filled with data. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the signal available will vary depending upon the amount of data needed.

Referring to claim 6, Maeda discloses a transmitter (figure 1, reference character 50) for transmitting data to a receiver synchronous with a signal available in the receiver comprising a trigger receiving means for receiving the trigger sent from receiver indicating that the receiver is ready to accept data and a data sender (figure 1, reference character 8a) for sending data to the receiver (column 5, lines 7-10). As explained above in reference to claim 1, Maeda does not

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specifically disclose that the signal available is not of a constant frequency. However, it is well known in the art and admitted by the applicant (page 4, lines 24-26 of the specification) that in many frame formats, such as ADSL, an entire frame need not be filled with data. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the signal available will vary depending upon the amount of data needed.

In reference to claims 2 and 7, Maeda discloses a conventional data transmission system for use with asynchronous data (figure 12; column 1, lines 10-11) and the improvement as described above in reference claim 1 is for improving communication using asynchronous data.

Regarding claim 11, Maeda discloses that upon receipt of the trigger signal, the transmitter immediately begins the process of transferring data to the receiver (column 5, lines 7-10).

Regarding claims 27-29, Maeda discloses a receiver (figure 1, reference character 120) for receiving data from a transmitter comprising trigger generation and sending means for indicating a time moment when the receiver is ready to receive data (column 5, lines 4-7) and a data receiver for receiving a data transmitted by the transmitter (column 5, lines 17-21) that is synchronized with the signal available in the receiver (column 5, lines 11-21). While Maeda does not specifically disclose that the trigger signal is an asynchronous trigger, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize an asynchronous trigger to indicate that the receiver is ready to receive data in an asynchronous system.

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Referring to claim 32, Maeda discloses that upon receipt of the trigger signal, the transmitter immediately begins the process of transferring data to the receiver (column 5, lines 7-10).

Regarding claim 33, Maeda discloses a transmitter (figure 1, reference character 50) comprising a trigger receiving means for receiving the trigger sent from receiver indicating that the receiver is ready to accept data and a data sender (figure 1, reference character 8a) for sending data to the receiver (column 5, lines 7-10). While Maeda does not specifically disclose that the trigger signal is an asynchronous trigger, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize an asynchronous trigger to indicate that the receiver is ready to receive data in an asynchronous system.

In reference to claim 38, Maeda discloses that upon receipt of the trigger signal, the transmitter immediately begins the process of transferring data to the receiver (column 5, lines 7-10).

7. Claims 3, 8, 13, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda in view of Gregg. Maeda discloses all of the subject matter as described above, but does not show the transmission of idle data in the event that no data is available in the transmitter. Gregg teaches the generation and transmission of idle characters in a synchronizing circuit in the event no data is being transmitted (column 1, lines 25-27; column 2, lines 40-47). It is well known in the art that in systems such as DSL, it is necessary to keep the link active even if there is no data to send. Generating and transmitting idle data ensures that the link remains active. Therefore it would have been obvious to one of ordinary skill in the art at the time of the

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invention to implement the idle character generator taught by Gregg with the teachings of Maeda to keep an active communications link.

Allowable Subject Matter

8. Claims 5, 9, 10, 14, 15, 18-20, 24, 25, 30, 31, and 34-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Regarding claims 5 and 18, prior art of record does not disclose or suggest that the receiver is used in an ADSL modem. Regarding claims 9, 14, 19, 24, 30, and 36, prior art of record does not teach or suggest that the transmitter is an ATM data stream. Regarding claims 10, 15, 20, 25, 31, and 37, prior art of record does not teach or suggest that the receiver comprises frames for a DSL data stream. Regarding claims 34 and 35, prior art of record does not teach or suggest buffer data in the transmitter until a trigger signal is received from the receiver.

9. Claims 39 and 40 are allowed. Prior art of record does not disclose or suggest the method of synchronizing data by sending trigger signal for use in a system comprised of an ATM transmitter and a ADSL receiver.

Response to Arguments

10. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Demetria A. Williams whose telephone number is (703) 305-4078. The examiner can normally be reached on Monday - Friday, 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.



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